

Abstract

Method and Device for Measuring Ultrahigh Vacuum

The invention relates to a method and a device for measuring ultrahigh vacuum and, more particularly, to a method for measuring ultrahigh vacuum with an ultrahigh-vacuum cold cathode pressure gauge, and to an ultrahigh-vacuum cold cathode pressure gauge. The pressure gauge according to the invention operates at a voltage that varies with pressure in such a way that the ion current is maintained at its maximum value at all times. The method for measuring ultrahigh vacuum by means of an ultrahigh-vacuum cold cathode pressure gauge is characterized in that the voltage-controlled source (3) preliminarily scans the entire voltage range, preferably between 1 kV and 12 kV, in a short time, and subsequently sets the source to the voltage, at which the current was at its maximum value, or that, alternatively, the voltage-controlled source (3), based on the calibration of the gauge, sets the voltage, for a given pressure, to the value that has been previously stored as optimal. The device for measuring ultrahigh vacuum is characterized in that the anode (1) of the pressure gauge cell is connected to a voltage-controlled source (3) providing a varying voltage.